

Comparisons of Job Characteristics

Focus Occupation: Tool and Die Makers (51-4111)

Associated Occupation: Machinists (51-4041)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 95

Focus Occupation: Tool and Die Makers (51-4111)

Associated Occupation: Machinists (51-4041)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Mechanical	6.8	18.0	17.6	0	Current knowledge level may be sufficient
Mathematics	9.2	14.2	14.2	0	Current knowledge level may be sufficient
Production and Processing	6.0	12.7	10.6	<	Expanded education and/or training may be required
Design	5.2	11.2	15.6	>>	Current knowledge level is likely more than sufficient
Engineering and Technology	5.7	10.2	12.8	>	Current knowledge level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 75

Focus Occupation: Tool and Die Makers (51-4111)

Associated Occupation: Machinists (51-4041)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Quality Control Analysis	5.9	12.6	7.7	<<	Extensive development of skills in this area may be required
Operation Monitoring	6.6	12.0	9.1	<<	Extensive development of skills in this area may be required
Operation and Control	5.4	11.1	9.6	<	A higher skill level may be required
Troubleshooting	4.5	10.2	6.1	<<	Extensive development of skills in this area may be required
Equipment Maintenance	3.5	9.3	6.4	<<	Extensive development of skills in this area may be required
Equipment Selection	3.3	8.6	7.2	<	A higher skill level may be required

Repairing	3.4	8.5	5.6	<<	Extensive development of skills in this area may be required
Installation	1.7	6.0	2.6	<<	Extensive development of skills in this area may be required
Technology Design	2.6	6.0	6.3	0	Current skill level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 76			
Focus Occupation: Tool and Die Makers (51-4111) Associated Occupation: Machinists (51-4041)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Control Precision	6.6	13.3	11.2	<	Some improvement in abilities may be required
Finger Dexterity	7.6	11.6	9.3	<	Some improvement in abilities may be required
Manual Dexterity	6.5	11.1	8.7	<	Some improvement in abilities may be required
Multilimb Coordination	6.0	10.7	8.7	<	Some improvement in abilities may be required
Reaction Time	4.8	10.1	8.3	<	Some improvement in abilities may be required
Hearing Sensitivity	5.6	9.3	5.6	<<	Extensive improvement in abilities may be required
Rate Control	3.8	8.6	5.0	<<	Extensive improvement in abilities may be required
Wrist-Finger Speed	3.2	7.3	4.0	<<	Extensive improvement in abilities may be required
Sound Localization	2.2	6.2	1.7	<<	Extensive improvement in abilities may be required
Speed of Limb Movement	3.2	6.1	4.3	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 100
Focus Occupation: Tool and Die Makers (51-4111) Associated Occupation: Machinists (51-4041)		
Work Activities	Exclusivity of Activity	
Adjust production equipment/machinery setup	25	
Design tools or mechanical devices	85	
Determine tasks needed to complete machined products	87	
Examine products or work to verify conformance to specifications	15	

Fabricate, assemble, or disassemble manufactured products by hand	11
Identify base metals for welding	68
Install equipment or attachments on machinery or related structures	48
Lay out machining, welding or precision assembly projects	63
Load or unload material or workpiece into machinery	34
Monitor production machinery/equipment operation to detect problems	27
Move or fit heavy objects	8
Operate metal or plastic fabricating equipment/machinery	54
Perform safety inspections in manufacturing or industrial setting	33
Read blueprints	10
Read specifications	23
Read technical drawings	7
Recognize characteristics of alloys	71
Recognize characteristics of metals	62
Set up and operate variety of machine tools	62
Set up computer numerical control machines	69
Set up production equipment or machinery	51
Solve machine tool problems	89
Understand machine setup instructions	74
Understand technical operating, service or repair manuals	6
Use arc welding equipment	62
Use hand or power tools	2
Use machining practices	92
Use non-destructive test equipment	82
Use precision measuring tools or equipment	17
Use x-ray or magnetic inspection techniques	84
Weld together metal parts, components, or structures	54

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 87

Focus Occupation: Tool and Die Makers (51-4111)
Associated Occupation: Machinists (51-4041)

Tools and Technologies	Exclusivity
Bandsaws and accessories	26
Business function specific software	1
Computer printers	2
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Cutting tools	18
Drafting supplies	9
Face and head protection	7

Forming tools	2
Holding and clamping tools	3
Hydraulic presses	25
Industry specific software	1
Length and thickness and distance measuring instruments	2
Lifting equipment and accessories	3
Machine tools	7
Machinery for working wood and stone and ceramic and the like	12
Marking tools	11
Measuring and layout tools	3
Metal bending and forming machinery	17
Pneumatic tools	8
Power tools	2
Rough and finishing tools	5
Soldering and brazing and welding machinery and supplies	6
Special tooling fixtures	16
Tool attachments and accessories	12
Viewing and observing instruments and accessories	4
Vision protection and accessories	3
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.